

non-speech audio in the data packet, the non-speech identifier being stored in a header in the data packet; and

a receiver, the receiver comprising:

a remove header routine which detects the non-speech audio stored in the payload of the data packet dependent on the state of the non-speech identifier whereupon the jitter buffer latency can be modified.

REMARKS

Claims 1-20 are pending in the application. Claims 1-20 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Wildfeuer et al. (U.S. Patent No. 6,298,055). The Applicant respectfully traverses the rejections. Of the Claims, Claims 1, 7, 14, 19 and 20 are independent claims.

The Applicant thanks the Examiner for reviewing a draft response of the Amendment and for the telephone interview on October 30, 2002. During the telephone interview, the Examiner indicated that the Claims would be allowable over the cited prior art but that a further search may be needed. The Applicant thanks the Examiner for the indication that the claims would be allowable over the cited prior art.

The Applicant claims a method and apparatus for identifying the type of audio stored in the payload of a data packet. The state of a non-speech identifier included in a header in the received data packet identifies the type of audio stored in the payload of the received packet as non-speech or speech. Jitter buffer latency can be modified in a receiver dependent on the state of the non-speech identifier included in the header. (See Applicant's specification Fig. 3, packet (304); Fig. 4, non-speech identifier (406); Fig 6, step 600 as filed.) The Applicants' claimed invention uses a marker field in an RTP header as the non-speech identifier. (See Page 6, lines 17-22; Page 7, lines 4-9.)

Wildfeuer is directed to a transmitter that detects DTMF symbols in a digitized audio stream and stores the DTMF symbols in the payload of a packet. (See Wildfeuer Abstract and Col. 2, lines 42-57.)

In contrast to the Applicant's claimed invention, Wildfeuer does not teach or suggest storing "a non-speech identifier with the audio in the data packet, the non-speech identifier being stored in a header of the data packet" as claimed by the Applicant in independent Claim 1. Wildfeuer merely identifies a DTMF symbol in the digitized audio and stores the DTMF symbol

(as received) in the payload of a packet prior to transmitting the packet. In contrast, the Applicant's claimed non-speech identifier identifies the type of audio stored in the payload and is stored in a header of the data packet separate from the audio. Thus, Wildfeuer's discussion of a DTMF symbol stored in the payload of a packet does not teach or suggest the Applicant's claimed "non-speech identifier being stored in a header of the data packet".

Wildfeuer's mere discussion of the need to compensate for packet transmission jitter does not teach or suggest "if non-speech audio is stored in the payload of the data packet ... the jitter buffer latency can be modified." as claimed by the Applicant in Claim 1, lines 10-12. Wildfeuer does not even suggest a "non-speech identifier being stored in a header in the data packet." Thus, Wildfeuer does not suggest the need for detecting the state of a non-speech identifier "to determine if non-speech audio is stored in the payload of the data packet, whereupon the jitter buffer latency can be modified" as claimed by the Applicant in Claim 1, lines 8-11.

The above quoted claim language is in base Claims 1, 7, 14, 19 and 20. Claims 2-6 are dependent on Claim 1, Claims 8-13 are dependent on Claim 7 and Claims 15-18 are dependent on Claim 14 and thus include this limitation over the prior art.

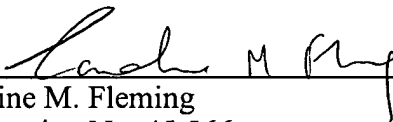
Thus, neither Wildfeuer nor any of the cited prior art teach or suggest the Applicant's claimed method and apparatus which detects the state of the non-speech identifier in the header of the received data packet to determine if non-speech audio is stored in the payload of the data packet. Accordingly, the present invention as now claimed is believed to be patentably non-obvious over the cited art. In view of the foregoing, removal of the rejections under 35 U.S.C. § 102(e) and acceptance of Claims 1-20 are respectively requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims (Claims 1-20) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned at (978) 341-0036.

Respectfully submitted,

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MARKED UP VERSION OF AMENDMENTS

Claim Amendments Under 37 C.F.R. § 1.121(c)(1)(ii)

1. (Amended) In a system for transmitting audio over a data network; and wherein received audio packets are stored in a jitter buffer in a receiver and read from the jitter buffer at a rate dependent on a jitter buffer latency which can be modified during periods of quasi-silence, an apparatus for determining if a data packet contains one of two types of audio, non-speech audio or speech audio comprising:
 - a non-speech detection module which identifies the type of audio received as a data stream;
 - an add header routine which stores a non-speech identifier with the audio in the data packet, the non-speech identifier being stored in a header in the data packet; and
 - a remove header routine which detects the state of the non-speech identifier in the header of the received data packet to determine if non-speech audio is [included] stored in the payload of [in] the data packet, whereupon the [modification to the] jitter buffer latency [is enabled] can be modified.
2. (Amended) The [An] apparatus as claimed in Claim 1 wherein the non-speech identifier is a one bit field included in [a] the header in the data packet.
3. (Amended) The [An] apparatus as claimed in Claim 2 wherein the non-speech identifier is stored in a Real-time Transport Protocol header.
4. (Amended) The [An] apparatus as claimed in Claim 3 wherein the non-speech identifier is set to a first of two states if the data packet contains non-speech audio.
5. (Amended) The [An] apparatus as claimed in Claim 3 wherein the non-speech identifier is set to a second state if the data packet contains speech audio.
6. (Amended) The [An] apparatus as claimed in Claim 1 wherein the remove header routine determines from the state of the non-speech identifier that speech audio is included in the data packet whereupon the jitter buffer latency modification is disabled.

7. (Amended) An apparatus for determining if a data packet contains non-speech audio or speech audio comprising:
 - means for storing a non-speech identifier with the non-speech audio in the data packet, the non-speech identifier being stored in a header in the data packet; and
 - means for detecting the non-speech audio [included in] stored in the payload of the data packet dependent on the state of the non-speech identifier in the header of the received data packet.
8. (Amended) The [An] apparatus as claimed in Claim 7 wherein the non-speech identifier is a one bit field included in [a] the header in the data packet.
9. (Amended) The [An] apparatus as claimed in Claim 8 wherein the non-speech identifier is stored in a Real-time Transport Protocol header.
10. (Amended) The [An] apparatus as claimed in Claim 9 wherein the non-speech identifier is set to a first of two states if the data packet contains non-speech audio.
11. (Amended) The [An] apparatus as claimed in Claim 9 wherein the non-speech identifier is set to a second state if the data packet contains speech audio.
12. (Amended) The [An] apparatus as claimed in Claim 7 wherein upon detection of the non-speech audio the means for detecting enables jitter buffer latency modification.
13. (Amended) The [An] apparatus as claimed in Claim 7 wherein upon detection of the non-speech audio the means for detecting disables jitter buffer latency modification.
14. (Amended) In a system for transmitting audio over a data network; and wherein audio packets are stored in a jitter buffer in a receiver and read from the jitter buffer at a rate dependent on a jitter buffer latency which can be modified during periods of quasi-silence, a method for identifying a data packet containing one of two types of audio, non-speech audio or speech audio comprising the steps of:
 - generating a non-speech identifier which identifies which type of audio is in the packet;
 - storing, by an add header routine, the non-speech identifier with the audio in the data packet, the non-speech identifier being stored in a header in the data packet; and

detecting, by a remove header routine, the state of the non-speech identifier in the header of the received data packet to determine if non-speech audio is [included in] stored in the payload of the data packet, whereupon [the modification to] the jitter buffer latency [is enabled] can be modified.

15. (Amended) The [A] method as claimed in Claim 14 wherein the non-speech identifier is a one bit field included in a header in the data packet.
16. (Amended) The [A] method as claimed in Claim 15 wherein the non-speech identifier is stored in a Real-time Transport Protocol header.
17. (Amended) The [A] method as claimed in Claim 16 wherein the non-speech identifier is set to a first of two states if the data packet contains non-speech audio.
18. (Amended) The [A] method as claimed in Claim 16 wherein the non-speech identifier is set to a second state if the data packet contains speech audio.
19. (Amended) A computer program product for determining if a data packet contains non-speech or speech audio, the computer program product comprising a computer usable medium having computer readable code thereon, including program code which:
 - stores a non-speech identifier with the non-speech audio in the data packet, the non-speech identifier being stored in a header in the data packet; and
 - detects non-speech audio [included in] stored in the payload of the data packet dependent on the state of the non-speech identifier in the header of the received data packet.
20. (Amended) An apparatus for determining if a data packet contains non-speech audio or speech audio comprising:
 - a transmitter, the transmitter comprising:
 - an add header routine which stores a non-speech identifier with the non-speech audio in the data packet, the non-speech identifier being stored in a header in the data packet; and
 - a receiver, the receiver comprising:
 - a remove header routine which detects the non-speech audio [included in] stored in the payload of the data packet dependent on the state of the non-speech identifier whereupon the jitter buffer latency can be modified.